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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,286	08/23/2001	Jeffrey A. Hubbell		1184

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04/21/2006

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EXAMINER

TESKIN, FRED M

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,286

Applicant(s)

HUBBELL ET AL.

Examiner

Fred M. Teskin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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The reply of March 30, 2005 has been fully considered with the following effect:

(i) The objection to the disclosure has been obviated by appropriate amendments to the specification.

(ii) The Section 112 rejection has been reconsidered and is withdrawn in view of applicants' representations that "molecular weight" (claims 1 and 2) refers to the total or absolute molecular weight in kilodaltons of the polyanionic polymer segments which make up the polymer and that "average molecular weight" (claim 3) means the absolute molecular weight of the polymeric chain which is most frequently found in the polymeric mixture.

(iii) The prior art rejection based on Ackerman et al is maintained and applicants' arguments found unpersuasive as detailed below.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 2923692 to Ackerman et al.

The basis of the rejection is adequately set forth in the prior Office action (pages 5-6) and that explanation is incorporated herein by reference.

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Applicant's arguments filed March 30, 2005 have been fully considered but they are not persuasive.

Applicants first argue that Ackerman cannot be taken to anticipate the present invention because there is absolutely no mention of molecular weight or the importance of molecular weight to the biological activity of the polymer or that the Ackerman polymers are susceptible to water hydrolysis such that the polyanionic segments are linked together through the hydrolytically susceptible linking moieties to form the copolymer. (Reply, p. 7)

This argument is unpersuasive because, even if it is conceded that Ackerman fails to mention molecular weight or biological activity, this is not dispositive of patentability. Where the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness is established. *In re Best*, 195 USPQ 430, 433 (CCPA 1977). When there is sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not. *In re Spada*, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Instantly, applicants acknowledge that their crosslinked polyanionic polymer is analogous to a crosslinked homopolymer or copolymer of anionic monomers, such as the polymers sold by the BFGoodrich Company, the assignee of Ackerman et al, under the tradename Carbopol, e.g., carboxypolymethylenes with the triallyl ether of pentaerythritol as crosslinker (at 0.1 % to 2.5 %, w/w, based on other monomers; see specification, page 30).

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Polymer J in Ackerman et al is obtained by free-radical mediated (i.e., peroxide-induced) polymerization of acrylic acid with, as crosslinker, a polyallyl ether of pentaerythritol at 2.0 % (per col. 12, line 60). Such amount of crosslinker falls well within applicants' disclosed range and acrylic acid is one of applicants' exemplified suitable monomers (*cf.*, specification page 24, ll. 22+).

The identity of monomer and crosslinker type and amount and the similarity in polymerization technique provide a plausible basis to infer that the molecular weight limitation of claims 1-3 may be an inherent property of the cited compositions of Ackerman.

Further as to biological activity, it is noted that the claims recite no specific activity. And even if one assumes, *arguendo*, a general biological activity inherently flows from the recited composition and molecular weight parameter, the acrylic acid copolymers of Ackerman, having been prepared by subjecting the same species of monomer and crosslinker to a similar free radical (peroxide initiated) polymerization, are reasonably presumed to intrinsically possess the same such activity.

As to susceptibility of the Ackerman polymers to water hydrolysis, it is well settled that products of identical chemical compositions cannot have mutually exclusive properties, *In re Papesch*, 137 USPQ 43, 51 (CCPA 1963). For reasons detailed above and in the prior action, at least the acrylic acid copolymers of Ackerman appear to be compositionally identical to the presently claimed polymer composition. It follows that these copolymers would necessarily possess the same properties as the claimed composition, including hydrolytic

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susceptibility. Indeed, the Ackerman reference itself characterizes the copolymers as "highly water-sensitive" (col. 12, ll. 43-44).

Applicants further argue that if anything, the polymers of Ackerman have higher molecular weight, not lower molecular weight, citing column 13, lines 7-11, which is said to disclose the polymers as having high viscosities. (Reply, p. 8)

The cited portion of Ackerman discusses the viscosity of certain mucilages obtained from the sodium salt form of the polymers of Example IV, noting the 1.5 % mucilages being well above 1000 poises in viscosity. However, there is nothing in the present record to indicate the applicants' claimed composition *necessarily* displays a lower viscosity. In particular, there is no evidence or technical explanation to support a finding that the limitation on molecular weight of the polyanionic polymer segments correlates to a materially lower viscosity for the claimed composition under comparable conditions to those of Ackerman.

Absent such a showing, examiner remains of the view that it is reasonable to infer that the polymerization by both Ackerman and applicants of identical monomers (e.g., acrylic acid) with the same type and amount of crosslinker (e.g., 2.0 % polyallyl ether of pentaerythritol) under similar polymerization conditions (free-radical) would produce compositions comprising polyanionic polymer segments of the same molecular weight. The claimed composition is therefore maintained as *prima facie* unpatentable over Ackerman.

Accordingly, the continued rejection is still deemed to be tenable and is therefore maintained.

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No claims are allowable at this time.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information

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for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMTeskin/01-11-06


FRED TESKIN
PRIMARY EXAMINER
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